



Environmental Compliance Assistance Program

Simplifying Compliance



An Introduction to Solid Waste

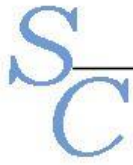


Derek Bozzell
Division of Compliance Assistance

Solid Waste Regulations

- Solid Waste Disposal Act – 1965
 - Tried to address growing waste amounts and ensure proper management
 - Promoted better waste management technology
 - Defined solid waste as a local responsibility
 - Provided funding





Solid Waste Regulations

- Resource Recovery Act – 1970
 - Amendment to SWDA
 - Started push for recycling
- Resource Conservation and Recovery Act (RCRA) – 1976
 - Section D deals with Solid Waste
 - Bans open dumps & sets criteria for landfills
 - Discusses waste reduction



Solid Waste Regulations

- Defined in KRS 224.01-010

"Solid waste" means any garbage, refuse, sludge, and other discarded material, including solid, liquid, semi-solid, or contained gaseous material resulting from industrial, commercial, mining (excluding coal mining wastes, coal mining by-products, refuse, and overburden), agricultural operations, and from community activities, but does not include those materials including, but not limited to, sand, soil, rock, gravel, or bridge debris extracted as part of a public road construction project funded wholly or in part with state funds, recovered material, tire-derived fuel, special wastes as designated by KRS 224.50-760, solid or dissolved material in domestic sewage, manure, crops, crop residue, or a combination thereof which are placed on the soil for return to the soil as fertilizers or soil conditioners, or solid or dissolved material in irrigation return flows or industrial discharges which are point sources subject to permits under Section 402 of the Federal Water Pollution Control Act, as amended (86 Stat. 880), or source, special nuclear, or by-product material as defined by the Atomic Energy Act of 1954, as amended (68 Stat. 923):

1. "Household solid waste" means solid waste, including garbage and trash generated by single and multiple family residences, hotels, motels, bunkhouses, ranger stations, crew quarters, and recreational areas such as picnic areas, parks, and campgrounds, but it does not include tire-derived fuel;
2. "Commercial solid waste" means all types of solid waste generated by stores, offices, restaurants, warehouses, and other service and nonmanufacturing activities, excluding tire-derived fuel and household and industrial solid waste;
3. "Industrial solid waste" means solid waste generated by manufacturing or industrial processes that is not a hazardous waste or a special waste as designated by KRS 224.50-760, including, but not limited to, waste resulting from the following manufacturing processes: electric power generation; fertilizer or agricultural chemicals; food and related products or by-products; inorganic chemicals; iron and steel manufacturing; leather and leather products; nonferrous metals manufacturing/foundries; organic chemicals; plastics and resins manufacturing; pulp and paper industry; rubber and miscellaneous plastic products, except tire-derived fuel; stone, glass, clay, and concrete products; textile manufacturing; transportation equipment; and water treatment; and
4. "Municipal solid waste" means household solid waste and commercial solid waste;

Solid Waste

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graph TD; SW[Solid Waste] --- IW[Industrial Waste]; SW --- MW[Municipal Waste]; MW --- HW[Household Waste]; MW --- CW[Commercial Waste]
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Industrial
Waste

Municipal
Waste

Household
Waste

Commercial
Waste



Handling Different Wastes

- For handling, there are three main categories:
 - Solid Waste
 - Construction and Demolition Debris
 - Special Waste



Solid Waste

- Non-hazardous
- Can be from industrial or commercial operations, or from households
- Not exempted or considered special waste

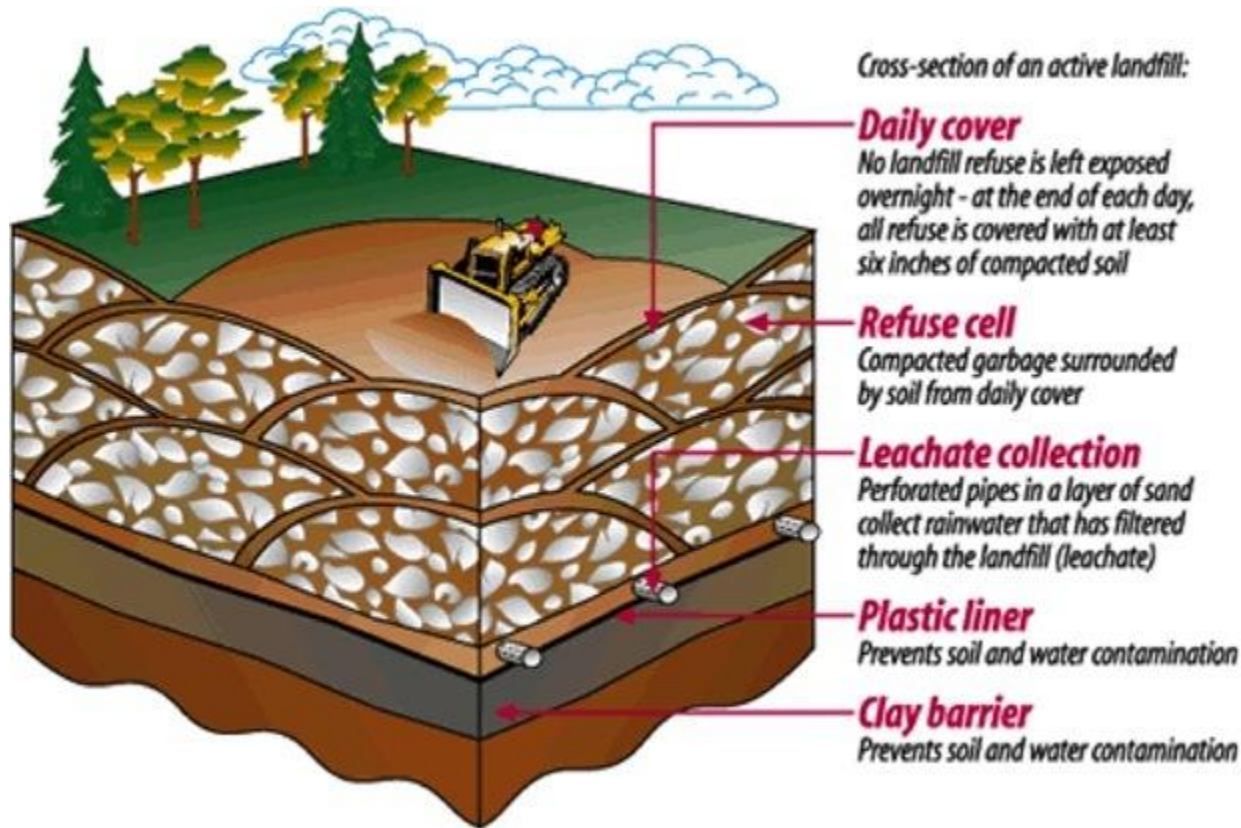


Handling Solid Waste

- Generally municipal solid wastes can be thrown away.
 - There are some exceptions:
 - Pharmaceutical, medical, infectious, radioactive wastes
 - Controlled substances



Contained Landfills





Residual Landfills

- Designed to dispose of a limited number of industrial wastes.
 - No general list of acceptable wastes, identified in specific permit.
 - Each waste stream is analyzed before it can be disposed of.
 - Do not accept municipal solid waste



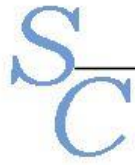
Construction and Demolition Debris

- Material resulting from:

- Construction
- Repair
- Remodeling
- Demolition
- Roads

- Must be non-hazardous





Construction and Demolition Debris

- Uncontaminated vegetation resulting from land clearing and grubbing, utility line maintenance, and seasonal storm-related clean up.





Handling CDD

- Simplest solution is to take to a licensed CDD landfill.
- Can bury onsite and use as structural fill one-time if:
 - Burial occurs at the point of generation and during period of construction
 - Waste does not include any leachable hazardous constituents, asbestos, packaging, or putrescible wastes

CDD Landfills

- Two categories, based on size:
 - One acre or less
 - Must register with DWM under permit-by-rule
 - Greater than one acre
 - Must be permitted



Special Waste

- High volume and low hazard
 - Mining wastes
 - Utility wastes
 - Coal Gasification Facility Wastes
- Must be approved by the Cabinet
 - Generators must register
- A distinct category from solid and hazardous wastes.





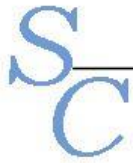
Handling Special Waste

- Must go to a permitted special waste landfill
 - Designed specifically for special waste
 - In general, the following waste streams are NOT ACCEPTABLE at special waste landfills:
 - Hazardous Waste
 - Municipal Solid Waste
 - Small quantity or limited quantity hazardous waste
 - Industrial Solid Wastes



Special Waste Landfills

- Designed for a specific, or limited number, of special wastes
 - Mining, coal gasification, other utility wastes
 - Wastewater treatment sludge
 - Cement kiln dust



Solid Waste Permitting

- Formal Permits
 - Off-site disposal at a permitted waste site or facility does not require a permit
 - Those waste facilities must be permitted
 - Permits vary depending on types of waste accepted

Open Dumping

- Disposal of waste at any place other than a permitted site or facility is illegal.





Permit-by-Rule

- Certain solid waste facilities are required to register under a permit-by-rule
- Permit-by-rules are not the same as a traditional permit
 - They are written for a specific industry or operation type.
 - Facilities register for coverage under that category.
 - Not a permit specific to that facility.



Permit-by-Rule

- A permit-by-rule is currently available for:
 - Transfer Stations
 - Recycling Centers
 - Composting Facilities
 - Landfarms
 - CDD landfills less than one acre
 - Solid waste incinerators

Waste Tires

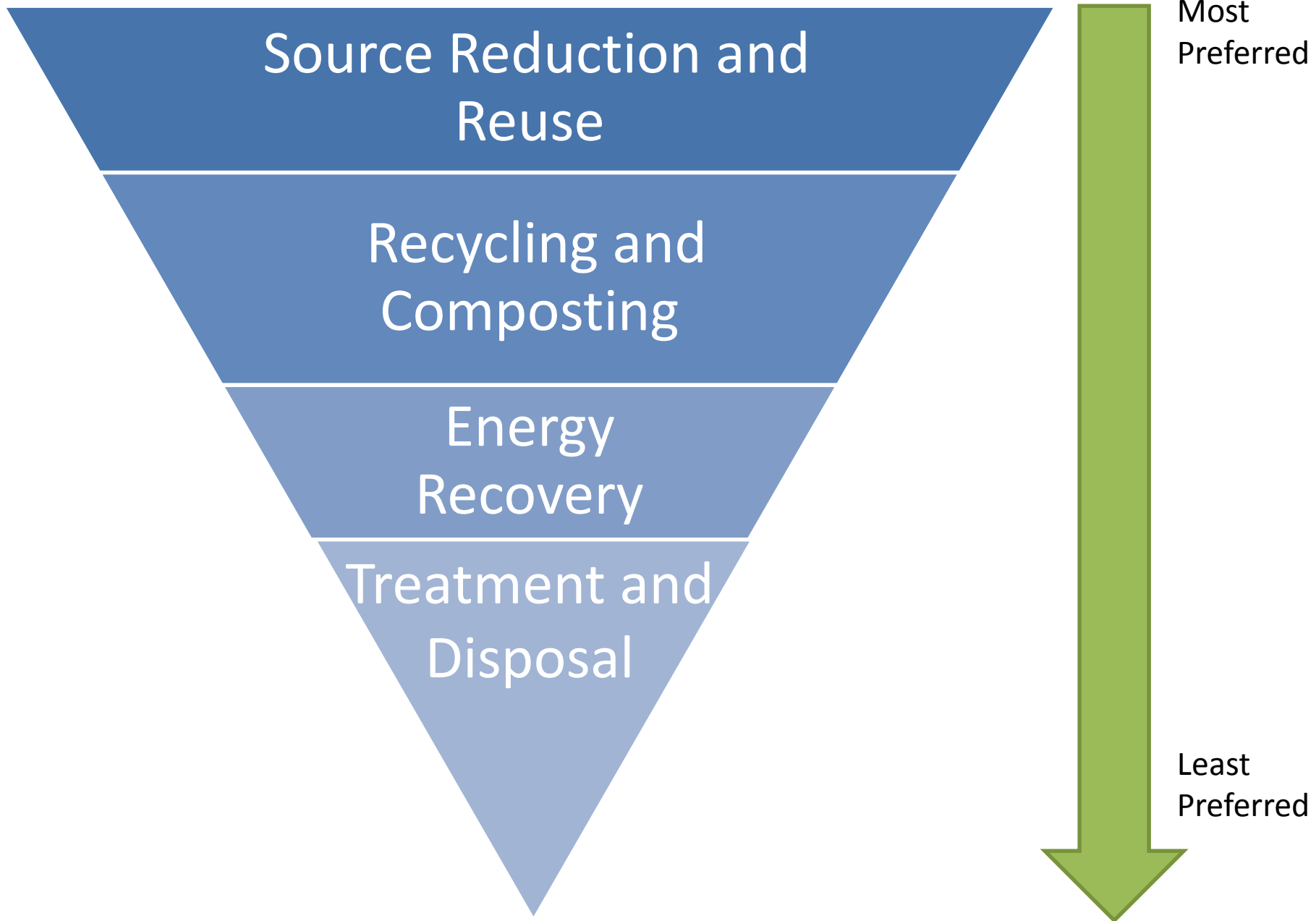
- You must register with DWM if you:
 - Accumulate over 25 tires for processing
 - Transport more than 50 tires at one time
 - Accumulate more than 100 tires



Solid Waste Reduction

- Source reduction
 - Preemptive ways to decrease waste before it can be generated
 - Reduce the amount and toxicity of waste created
- If a material still has a use or is recycled, it is not considered solid waste.
- Decreasing solid waste can save money!







Beneficial Reuse

- Solid wastes may be reused without obtaining a written permit.
 - Can cover things like:
 - Recycling
 - Soil amendments
 - Wood waste to mulch
 - Making use of byproduct in a process
 - Distillers grains
 - Using demolition materials as structural fill



Beneficial Reuse

- Solid wastes may be reused without obtaining a written permit.
- Division of Waste Management will provide written approval if requested with a DEP7098 form.



Beneficial Reuse

- Beneficial reuse of special wastes does require a permit.
 - Coal combustion residuals are an exception





Recycling

- Collecting wastes to reuse or re-manufacture into useable products or material.
 - Many local municipalities have waste hauling companies have recycling capabilities.
 - There are marketplaces developing for sale and transfer of recycled materials.
 - materialsmarketplace.org
 - wastechange.com
 - [Kentucky](#) (in progress)



Composting

- Composting involves allowing decomposition in controlled aerobic conditions.
 - Roughly 70% of waste produced in the US is compostable.
 - Commonly used to make mulch and soil amendments.



Composting

- Composting facilities must have a certified operator





Resources

- [County Solid Waste Coordinators List](#)
 - For any questions about local waste facilities or how to dispose of something
- [KY Solid Waste Program's website](#)
 - For information on recycling, permit-by-rule, beneficial reuse, general solid waste questions
- [Typical Environmental Authorizations](#)
 - For information on common waste management permits



Contacts

- Division of Waste Management (DWM)
 - 502-782-6716 or waste@ky.gov
- Beneficial Reuse/Permits by Rule
 - Robin Green (502-782-6369 or RobinC.Green@ky.gov)
- Recycling and Local Assistance Branch
 - Gary Logsdon (502-782-6405) or Gary.Logsdon@ky.gov
- Division of Compliance Assistance (DCA)
 - 502-782-6189 or envhelp@ky.gov



Questions?

Division of Compliance Assistance

502-782-6189 envhelp@ky.gov

